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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,914	12/31/2001	Pertti Elonen	PB103101	6081

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YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

AST, FATIMA M

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/029,914	ELONEN ET AL.	
	Examiner	Art Unit	
	Fatima Ast	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-30 are pending.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "**means 460**" (p 12 line 1). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **Fig. 3 140f**. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of

an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: apparent typographical error on p 2 line 26 "HTTP response **103**, 131, 132". Examiner will assume the intended reference is -HTTP response **130**, 131, 132-.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 24, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall (Hall, Eric; Internet Core Protocols: The Definitive Guide) in view of Wong (Wong, Clinton; HTTP Pocket Reference).

6. Regarding claims 1, 24, 29 and 30 Hall discloses a method, system and computer program product stored on a computer readable medium for a system for transferring data to a client using a certain packet data connection (Chapter 7: The Transmission Control Protocol), said method comprising the steps and system comprising means of:

a. receiving a request, which is according to a certain data transfer protocol and specifies a certain information entity (7.1.4.2 Opening a circuit). Hall teaches an HTTP server receiving a request from an HTTP client for a document, said document constituting a certain information entity. Hall does not specifically teach that the request is according to a certain data transfer protocol, however, Hall identifies the client and server as "HTTP client" and "HTTP server". It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention that the server and client as taught by Hall are communicating according to a data transfer protocol, specifically HTTP, because of the names by which they are identified.

b. sending, using said packet data connection, at a first time instant to said client a first portion of a response according to said data transfer protocol, said client after receipt of said first portion being arranged to accept further at least a further response (7.1.4.2 Opening a circuit). Hall teaches the HTTP server acknowledging the request from the HTTP client, and further teaches the HTTP client acknowledging the server's acknowledgement. The acknowledgement sent by the server constitutes a first portion of a response. The acknowledgement of the client constitutes the client being arranged to accept further responses. After the exchange of acknowledgements the client is ready to receive data from the server, said data would constitute a further response to the client.

c. sending, using said packet data connection, at sequential second time instants to said client a plurality of second portions of a response, each of said second portions comprising an information fragment of said information entity (7.1.5 Network I/O Management) and a header (7.1.5.4 Header size considerations). Hall teaches bundling portions of data into segments and sending the segments to the client, these segments constitute a plurality of second portions of a response. Hall further teaches each segment having header information. The headers as taught by Hall comprise computer language instructions for processing said information fragment (7.2 The TCP Header). Hall does not specifically enumerate headers within the data transfer protocol. Wong teaches HTTP headers (1.5.Headers). It would have been obvious to combine the HTTP headers of Wong with the TCP headers of Hall, in order to gain the advantage of transmitting information about the server that is transmitting response, as taught by Wong.

7. Regarding claims 2, 6, 25 and 27, Hall teaches the time period between the first time instant and the earliest second time instant is at maximum a certain first predetermined time period, and a time period between two sequential second time instants and between two sequential time instants of the second and third time instants is at maximum a certain second predetermined time period (7.1.6.2. sidebar in paragraphs 6-8 regarding "fall back timer", 7.1.7.4 Acknowledgment timers). Hall teaches an acknowledgment timer which sets a maximum allowable time between a transmission from a sender and the acknowledgement from the receiver. If the time

limit is exceeded the sender will retransmit, therefore establishing a maximum time period between transmissions from the sender. Furthermore, Hall teaches a fall-back timer such that if the time limit of the fall back time is exceeded, the sender will transmit a probe to the receiver, thereby establishing a second maximum time period between transmissions.

8. Regarding claims 3, 22 and 26, Hall teaches sending, using said packet data connection, at sequential third time instants to said client a plurality of third portions of a response, said third portions containing no information fragments specific to said information entity (7.1.6.2. sidebar in paragraphs 6-8 regarding "fall back timer"). Hall teaches sending a probe that constitutes a third portion and does not transmit data to the receiver.

9. Regarding claim 4, Wong teaches at least one of said third portions contains only computer language headers (1.3.2.HEAD: Retrieve Header Information, 1.4.2.Client Request Successful (200 Range) – "204 No Content").

10. Regarding claim 5, Hall teaches at least one of said third portions contains only one byte of data (7.1.4.6.Keep-alives). Hall does not specifically enumerate that said one byte of data is a carriage return and/or linefeed characters. Hall teaches "keep-alives" which are portions of a response sent to the client that contain no data or one byte of data. It would have been obvious for the one byte of data to be a carriage return, linefeed character or any other single character in order that meet any compatibility requirements of a given implementation as taught by Hall.

11. Regarding claims 7, 9, 11, 12 and 20, Hall teaches said packet data connection is a Transfer Control Protocol connection (Chapter 7: The Transmission Control Protocol), said data transfer protocol is Hypertext Transfer Protocol, said request is a Hypertext Transfer Protocol Request, the response, whereof said first portion constitutes a part, is a Hypertext Transfer Protocol Response and said first portion leaves Content-Length field value unknown. Wong teaches an unknown value in the Content-Length field (1.9 Retrieving Content).

12. Claims 8, 13-16, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall and Wong as applied to claim 1 above, and further in view of Kennedy (Kennedy, Bill; Musciano, Chuck; HTML & XHTML: The Definitive Guide, 4th Edition).

13. Regarding claims 8, 13-16, 21 and 23, Kennedy teaches said computer language is a scripting language, scripting tags constitute said computer language instructions, and said scripting language is JavaScript, VBScript or JScript (12.3. JavaScript) and said client is a browser program (1.2.1. Client, Servers, and Browsers). Kennedy teaches that JavaScript statements may occur any place in a document, either as blocks of code or single statements. The documents taught by Kennedy are retrieved by a client from a server; substantially in the same way the applicant's invention transfers data to the client. It would have been obvious to include JavaScript statements in the second portion of the response of Hall in view of Wong in order to gain the advantage of generating dynamic content as taught by Kennedy. Kennedy

teaches browsers which run on client computers and communicate with web servers in order to receive data.

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall and Wong as applied to claim 1 above, and further in view of Hauswirth ("A component and communication model for push systems" Hauswirth, Manfred, Jazayeri, Mehdi).

15. Regarding claim 10, Hall in view of Wong does not specifically enumerate said information fragment in at least one of said second portions is an information fragment relating to a change in said requested information entity, said change being made after said first time instant. Hauswirth teaches a connection between a server and a client, which remains open such that the server may continue to send portions of data to the client, and further teaches an example for use of such a connection of a stock ticker (1. Introduction). It would have been obvious that the information fragments sent to a stock ticker change from the first time instant to the second time instant as that is the purpose of a stock ticker, that is, to display current values of stocks. It would have been further obvious to combine the open connection and stock ticker with the combination of the inventions of Hall and Wong in order to gain the advantage of providing interested users with information as it is available as disclosed by Hauswirth.

16. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall and Wong as applied to claim 1 above, and further in view of Eckstein (Eckstein, Robert; XML Pocket Reference).

17. Regarding claims 17-19 Hall in view of Wong does not specifically enumerate said computer language is Extensible Markup Language (hereafter referred to as

"XML"), XML elements constitute said information fragments, and said first portion comprises starting headers of an XML document, however, Wong teaches responding to the client with data regarding the type of document on the server, and further specifies the document type to be HTML (1.2.2.Responses). Eckstein teaches XML as a replacement for HTML, in particular for nonstatic web pages (Chapter 1.XML Pocket Reference). It would have been obvious to combine the XML of Eckstein with the responses of Wong in order to gain the advantages of XML including the freedom to create and format individual document markups as needed by the creator of the document, as taught by Eckstein.

18. Regarding claim 28, Hall teaches said system resides on a server (7.1.4.2 Opening a circuit). Hall teaches an HTTP server as noted in claims 1, 24, 29 and 30 above.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,740,549 to Reilly et al.

US 5,959,621 to Nawaz et al.

US 6,035,423 to Hodges et al.

US 6,710,702 to Averbuch et al.

US 6,785,708 to Busey et al.

"The Push Technology Rage... So What's Next?" Gerwig, Kate

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fatima Ast whose telephone number is (571) 272-7217. The examiner can normally be reached on M-F, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100